Wisconsin DNR 24K Hydrography Version 3
Coverage Data Dictionary

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Wisconsin DNR 24K Hydrography Version 3
DATA DICTIONARY

HYDNW924.AAT (24K Hydrography Arc Attribute Table, NAD 83/91)

Structure:

Item Name	Input	Output		Type	Alternate_Name
FNODE#	4	5		B	
TNODE#	4	5		B	
LPOLY#	4	5		B	
RPOLY#	4	5		B	
LENGTH	8	18		F	
HYDNW924#	4	5		B	
HYDNW924-ID	4	5		B	
SW_NO *	8	8		I	
RIVSYSNAME *	50	50		C	RNAME
RIVSYSWBIC *	7	7		I	RWBIC
CARTO	3	3		C	
LINEAR_TYP *		2	2		C LTYP
QUADLINE	3	3		C	
DURATION	2	2		C	DUR
LANDLOCKED	3	3		C	LDLK
FLOW *	2	2		C	
LR_BANK	2	2		C	LRBNK
AR_BND_TYP	4	4		C	ABND
OH_SRC_YR	4	4		I	SDATE
OH_COL_MTH	6	6		C	CMETH
OH_SRC_DNM	10	10		I	
XREF	6	6		I	
BUILD_DATE	8	10		D	BDATE
HYD_VER	3	3		I	
WGS-ID	4	4		I	
WBIC_BY	7	7		C	
WBIC_DATE	8	10		D	
WBIC_STAT	10	10		C	
GEOM_CHFLG	1	1		I	
NAT_CHFLG	1	1		I	

GNIS_CHFLG	1	1	I
WBIC_CHFLG	1	1	I
REF_CHFLG	1	1	I
FLIP_CHFLG	1	1	I
NEW	1	1	I

* Items indexed to accelerate logical queries of data.

Descriptions:

FNODE# – From-node number; default ArcInfo item

TNODE# – To-node number; default ArcInfo item

LPOLY# – Left polygon number; default ArcInfo item

RPOLY# – Right polygon number; default ArcInfo item

LENGTH – Arc length; default ArcInfo item in cover units (meters)

HYDNW924# – Record number; default ArcInfo item

HYDNW924-ID – Identification number; default ArcInfo item

SW_NO – (Surface Water Number) A unique numerical identifier for each arc. This item is indexed.

RIVSYSNAME – (River System Name) The name of the river system. This item is indexed. Names based on the USGS Geographic Names Information System (GNIS). Excluding in-coming tributaries, any linear water feature holding the same name as the main river to which it is attached would be considered part of that river system. Examples: centerlines through reservoir/flowages, flow potentials through backwaters and secondary flow features (braided streams)

<GNIS Name>	The name provided by GNIS. Names only apply to arcs that carry flow.
'Unnamed'	No GNIS name for that feature. “Unnamed” only applies to arcs that carry flow.
'NA'	Not Applicable. NA applies to all arcs that do NOT carry flow.

RIVSYSWBIC – (River System Water Body ID Code) The Water Body ID Code (WBIC) of the river system. This item is indexed. WBICs from the DNR’s Register of Waterbodies (ROW) database. Excluding in-coming tributaries, any linear water feature holding the same WBIC as the main river to which it is attached would be considered part of that river system. Examples: centerlines through reservoir/flowages, flow potentials through backwaters and secondary flow features (braided streams).

<WBIC>	The WBIC provided by ROW. WBIC values only apply to arcs that carry flow.
0	No WBIC provided from ROW to assign to that feature. 0’s only apply to arcs that carry flow.
-1	Not Applicable. -1 applies to all arcs that do NOT carry flow.

CARTO – An item that allows for easy cartographic representation.

'YES'	Includes the following Linear Types {'BK' , 'CB' , 'DC' , 'ST' , 'UN' , 'ZZ'}.
'NO'	Includes the following Linear Types {'EX' , 'CL' , 'WG' , 'OC' , 'XX' , 'FP' , 'CW' and 'BF'}.

LINEAR_TYP – (Linear Type) A two-character type code for all arcs that indicates the linear hydrographic feature types. This item is indexed.

BF	State Boundary Buffer
BK	Bank or Shoreline
CB	Cranberry Bog Waterway
CL	Stream Center Line
CW	Channel in Water Area
DC	Ditch or Canal
EX	Stream Extension
FP	Flow Potential
OC	Original Water Course
ST	Single-line Stream
UN	Unknown
WG	Wetland Gap Connector
XX	Closure Line
ZZ	Convoluted Stream

QUADLINE – Indicates whether or not an arc closes off water polygons at quadrangle boundaries when the water polygons may not match from one quad to the next.

YES	Yes
NO	No

DURATION – A code for all arcs that indicates the span of time in which the feature contains water

PN	Perennial (based on cartographic symbolization)
FX	Fluctuating (based on linear_type *and* cartographic symbolization)
	E.g. diffuse connectors and wetland gaps. (All are based on *linear_types*)
IT	Intermittent (based on cartographic symbolization)
NA	Not applicable (for original water courses, channels in rivers, closure lines, etc.)

LANDLOCKED – Indicates whether or not a water feature is part of a landlocked hydro network.

YES	Part of hydro network that does not flow out of the state.
NO	Part of network that flows into Lake Superior, Lake Michigan or the Mississippi River

NA	Not Applicable. NA applies to all arcs that do NOT carry flow.

FLOW – A character code for all arcs that indicates whether the flow of water is primary or secondary. This item is indexed.

P	Primary
S	Secondary
NA	Not Applicable. NA applies to all arcs that do NOT carry flow.

LR_BANK – (Left/Right Bank) A character code for all arcs indicating whether the water polygon boundary is on the left or right side. Left and right are determined by the flow direction. Streams, flowages, and 'water polygons with centerlines or flow potential' will be given left and right designations. Those arcs not satisfying those criteria are coded as not applicable.

L	Left
R	Right
LR	Left and Right (single-line streams)
NA	Not Applicable. NA applies to the following linear types: CW, OC, UN, BF, CL, XX, EX, FP.

AR_BND_TYP – (Area Boundary Type) A four-character description code that reveals the POLY_TYP on either side of the linear feature (created by the combination of the two POLY_TYPs on either side of a given line). Examples of the two hundred and eighty-nine possible combinations are:

DPUP	Duck pond/upland (outline of a duck pond)
ISLP	Island/lake-pond (island shoreline)
LPUP	Lake-pond/upland (lake shoreline)
LPST	Closure line between a lake and stream
RFUP	Reservoir-flowage/upland (reservoir shoreline)
STUP	Stream/upland (stream bank)

OH_SRC_YR – (Original Horizontal Source Year) The most recent year of the data source that was utilized in our data capture; WIDNR constructed features (OH_COL_MTH of TAB002, SCR004 or SCR006) carry the year date that the watershed processing was completed.

OH_COL_MTH – (Original Horizontal Collection Method) A character code indicating the method of data conversion. (i.e. how the arc was created/derived)

SCN001 – Scanning or vectorizing technique

TAB001 – Digitized on table: feature published/visible on map sheet

TAB002 – Digitized on table: feature interpreted from map sheet

SCR003 – Digitized on screen: feature published/visible on USGS 7.5’ DRG

SCR004 – Digitized on screen: feature interpreted from USGS 7.5’ DRG

SCR005 – Digitized on screen: feature published/visible on digital vector data

SCR006 – Digitized on screen: feature interpreted from digital vector data

CNV001 – Provided in digital form from known source and converted for DNR use

OH_SRC_DNM – (Original Horizontal Source Denominator) Denominator of map scale source

XREF – Primary key link to GNIS data.

BUILD_DATE – A processing date indicating when the feature was added and verified by the editor.

HYD_VER – A numeric value indicating the most recent release number in which the feature was edited. The first release will have all arcs valued at 1.

WGS-ID – The Wisconsin Geological Survey quad identification code.

WBIC_BY – ID of editor who verified WBIC

WBIC_DATE – Date individual feature was quality assured for WBIC

WBIC_STAT – Indicates current status of WBIC designation

LOCATED – Feature does not have final approval from Don Fago.

NOT ASSIGNED – Feature has not been given a WBIC value.

ACCEPTED – Feature has been given a WBIC value.

NA – Applies to all arcs that carry no flow

GEOM_CHFLG – Any dimensional or positional changes to the feature.

1 – Feature has been changed geometrically

0 – Feature has not been changed geometrically

NAT_CHFLG – Any change to the natural attributes of the feature (such as LINEAR_TYP, DURATION, FLOW, LANDLOCKED).

1 – At least one natural attribute of the feature has changed

0 – No natural attributes have changed

GNIS_CHFLG – Any change to the GNIS item (RIVSYSNAME)

1 – The GNIS name has changed

0 – No name change

WBIC_CHFLG – Any change to the WBIC value (RIVSYSWBIC)

1 – WBIC attribute has been altered

0 – WBIC unchanged

REF_CHFLG – Any change to the reference items of the feature (WBIC_BY, WBIC_DATE, WBIC_STAT (any of those three unless WBIC_CHFLG is also set), QUADLINE, OH_SRC_YR, OH_COL_MTH, OH_SRC_DNM, XREF or WGS-ID).

1 – One or more items in the above list have been altered

0 – No changes

FLIP_CHFLG – Arc that has been flipped (direction reversed)

1 – Arc has been flipped

0 – Arc has not been flipped

NEW – Any feature added (i.e., new) in this release

1 – A new feature

0 – Not a new feature

Wisconsin DNR 24K Hydrography Version 3
DATA DICTIONARY

HYDNW924.PAT (24K Hydrography Polygon Attribute Table, NAD83/91)

Structure:

Name	Input	Output	Type	Alternate_Name
AREA	8	18	F	
PERIMETER	8	18	F	
HYDNW924#	4	5	B	
HYDNW924-ID	4	5	B	
SW_NO	8	8	I	
NAME	50	50	C	
WBIC	7	7	I	
POLY_TYP	2	2	C	PTYP
DURATION	2	2	C	DUR
LANDLOCKED	3	3	C	
OH_COL_MTH	6	6	C	
BUILD_DATE	8	8	D	BDATE
HYD_VER	3	3	I	
XREF	6	6	I	
WBIC_BY	7	7	C	
WBIC_DATE	8	10	D	
WBIC_STAT	10	10	C	

Descriptions:

AREA – Polygon area; default ArcInfo item in cover units (square meters)

PERIMETER – Polygon perimeter; default ArcInfo item

HYDNW924# – Record number; default ArcInfo item

HYDNW924-ID – Identification number; default ArcInfo item

SW_NO – (Surface Water Number) A unique numerical identifier for each polygon. This item is a primary key.

NAME – Name of the polygon. Names based on the USGS Geographic Names Information System (GNIS).

<GNIS Name>	The name provided by GNIS.
'Unnamed'	No GNIS name for that feature. “Unnamed” only applies to water polygons and islands.
'NA'	Not applicable. NA applies to all uplands

WBIC – The Water Body ID Code (WBIC) of the polygon. WBICs from the DNR’s Register of Waterbodies (ROW) database.

<WBIC>	The WBIC provided by ROW. WBIC values only apply to water polygons.
0	No WBIC provided from ROW to assign to that feature. 0's only apply to water polygons..
-1	Not applicable. -1 applies to all polygons that do NOT contain water (i.e., islands and uplands).

POLY_TYP – (Polygon Type) A two-character code for each polygon. The code represents areal water and land features.

BA	Backwater
CB	Cranberry Bog
DP	Duck Pond
DC	Ditch or Canal
FH	Fish Hatchery or farm
FE	Flooded Excavation (e.g. pits, quarries, old mines)
IA	Inundation Area
IS	Island
IW	Industrial Waste Pond
LP	Lake or Pond
RF	Reservoir or Flowage
ST	Double-line Stream
SD	Sewage disposal pond or filtration beds
TP	Tailings Pond
UN	Unknown hydrography polygon
UP	Upland – all non-water polygons other than islands
ZZ	Convoluted Stream

DURATION – A code that indicates the span of time in which the hydrographic feature contains water (i.e., intermittent, fluctuating, perennial).

PN	Perennial (based on cartographic symbolization)
FX	Fluctuating (based on POLY_TYP *and* cartographic symbolization) e.g. inundation areas, cranberry bogs, backwaters...
IT	Intermittent (based on cartographic symbolization)
NA	Not applicable. NA applies to all polygons that do NOT contain water (i.e., islands and uplands).

LANDLOCKED – Indicates whether or not a water feature is part of a landlocked hydro network.

YES	Part of hydro network that does not flow out of the state.
NO	Part of network that flows into Lake Superior, Lake Michigan or the Mississippi River

NA Not Applicable. NA applies to all polygons that do NOT contain water (i.e., islands and uplands).

OH_COL_MTH – A code indicating the method of data conversion

MLT004 Polygons composed of arcs with various attributes – see arc attributes

BUILD_DATE – A processing date indicating when the feature was added and verified by the editor.

HYD_VER – A numeric value indicating the most recent release number in which the feature was edited. The first release will have all polygons valued at 1.

XREF – Primary key link to GNIS data.

WBIC_BY – ID of editor who verified WBIC

WBIC_DATE – Date individual feature was quality assured for WBIC

WBIC_STAT – Indicates current status of WBIC designation

LOCATED – Feature does not have final approval from Don Fago.

NOT ASSIGNED – Feature has not been given a WBIC value.

ACCEPTED – Feature has been given a WBIC value.

NA – Applied to uplands and islands

HYDNW924.nat (24K Hydrography Node Attribute Table, NAD83/91)

Structure:

Item Name	Input	Output	Type
ARC#	4	5	B
HYDNW924#	4	5	B
HYDNW924-ID	4	5	B
DRAIN	2	2	I

Descriptions:

ARC# – Record number; default ArcInfo item

HYDNW924# – Record number; default ArcInfo item

HYDNW924-ID – Identification number; default ArcInfo item

DRAIN – Point of a transport element

0 Not downstream point

1 Down-stream point of non-landlocked transport system (secondary drain)

2 Down-stream point of landlocked transport system (main drain)

3 Down-stream point of state of non-landlocked transport system (main drain)

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DATA DICTIONARY

HYDNW924.SECSTEM (24K Hydrography Transport Section.stem Table, NAD83/91)

Structure:

Item Name	Input	Output	Type
ROUTELINK#	4	5	B
ARCLINK#	4	5	B
F-MEAS	4	12	F
T-MEAS	4	12	F
F-POS	4	12	F
T-POS	4	12	F
STEM#	4	5	B
STEM-ID	4	5	B
UNIT	4	12	F

Descriptions:

ROUTELINK# – Relate number to route.stem's STEM#; default ArcInfo item

ARCLINK# – Relate number to .AAT; default ArcInfo item

F-MEAS – From-measure; default ArcInfo item.

T-MEAS – To-measure; default ArcInfo item.

F-POS – From-position; default ArcInfo item (percentage of total arc length where section starts).

T-POS – To-position; default ArcInfo item (percentage of total arc length where section ends)

STEM# – Record number; default ArcInfo item

STEM-ID – Identification number; default ArcInfo item

UNIT – Numerical difference of T-MEAS and F-MEAS

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DATA DICTIONARY

HYDNW924.RATSTEM (24K Hydrography Transport Route.stem Table, NAD83/91)

Structure:

Item Name	Input	Output	Type	Alternate_Name
STEM#	4	5	B	
STEM-ID	4	5	B	
STEM_NO *	8	8	I	ST_NO
HYD_VER	3	3	I	
LOMEAS	8	18	F	
HIMEAS	8	18	F	
MILES	8	18	F	
LENGTH	8	18	F	
UNIT	4	4	I	
GEOM_CHFLG	1	1	I	
FLIP_CHFLG	1	1	I	
NEW	1	1	I	

* Items indexed to accelerate logical queries of data.

Descriptions:

STEM# – Record number; default ArcInfo item

STEM-ID – Identification number; default ArcInfo item

STEM_NO – A unique numerical identifier for each route. This item is a primary key. This item is indexed.

HYD_VER – A numeric value indicating the most recent release number in which the feature was edited. The first release will have all stems valued at 1.

LOMEAS – The low measure of the STEM route (always 10).

HIMEAS – The high measure of the STEM route (always an integer multiple of 10).

MILES – Length in miles

LENGTH – Length in meters

UNIT – Numerical difference of LOMEAS and HIMEAS

GEOM_CHFLG – Any dimensional or positional changes to the feature.

1 – Feature has been changed geometrically

0 – Feature has not been changed geometrically

FLIP_CHFLG – Route that has been flipped (direction reversed)

1 – Route has been flipped

0 – Route has not been flipped

NEW – Any feature added (i.e., new) in this release

1 – A new feature

0 – Not a new feature

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DATA DICTIONARY

HYDNW924.PATSHAID (24K Hydrography Areas Region.SHAID Table, NAD83/91)

Structure:

Item Name	Input	Output	Type	Alternate_Name
AREA	8	18	F	
PERIMETER	8	18	F	
SHAID#	4	5	B	
SHAID-ID	4	5	B	
SHAID_NO *	8	8	I	SH_NO
SHAIDNAME *	50	50	C	SNAME
SHAIDWBIC *	7	7	I	SWBIC
RIVSYSNAME *	50	50	C	RNAME
RIVSYSWBIC *	7	7	I	RWBIC
SHAID_TYP *	2	2	C	STYP
DURATION	2	2	C	DUR
LANDLOCKED	3	3	C	LDLK
HYD_VER	3	3	I	
GEOM_CHFLG	1	1	I	
NAT_CHFLG	1	1	I	
GNIS_CHFLG	1	1	1	
WBIC_CHFLG	1	1	I	
NEW	1	1	I	

* Items indexed to accelerate logical queries of data.

Descriptions:

AREA – Polygonal area, default Arc item in coverage units (square meters)

PERIMETER – Polygonal perimeter, default Arc item

SHAID# – Record number, default Arc item

SHAID-ID – Identification number; default ArcInfo item

SHAID_NO – A unique numerical identifier for each SHAID. This item is a primary key. This item is indexed.

SHAIDNAME – (Simple Hydro Area Name) The name of the Simple Hydro Area (SHAID)

Name derived from Geographic Names Information System (GNIS). This item is indexed.

SHAIDWBIC – (Simple Hydro Area Water Body ID Code) The Water Body ID Code (WBIC) of the Simple Hydro Area (SHAID). This item is indexed.

<WBIC> The WBIC provided by ROW.

0	No WBIC provided from ROW to assign to that feature.

RIVSYSNAME – (River System Name) The name of the river system. This item is indexed. Names based on the USGS Geographic Names Information System (GNIS). Excluding in-coming tributaries, any SHAID holding the same name as the main river to which it is attached would be considered part of that river system. Examples: reservoir/flowages, backwaters and secondary flow channels (braided streams).

<GNIS Name>	The name provided by GNIS.
'Unnamed'	No GNIS name for that feature.

RIVSYSWBIC – (River System Water Body ID Code) The Water Body ID Code (WBIC) of the river system. This item is indexed. WBICs from the DNR's Register of Waterbodies (ROW) database. Excluding in-coming tributaries, any SHAID holding the same WBIC as the main river to which it is attached would be considered part of that river system. Examples: reservoir/flowages, backwaters and secondary flow channels (braided streams).

<WBIC>	The WBIC provided by ROW.
0	No WBIC provided from ROW to assign to that feature.

SHAID_TYP – A two-character code for each region. The code represents areal water features. This item is indexed.

BA	Backwater
CB	Cranberry Bog
DP	Duck Pond
DC	Ditch or Canal
FH	Fish Hatchery or farm
FE	Flooded Excavation (e.g. pits, quarries, old mines)
IA	Inundation Area
IW	Industrial Waste Pond
LP	Lake or Pond
RF	Reservoir or Flowage
ST	Double-line Stream
SD	Sewage disposal pond or filtration beds
TP	Tailings Pond
UN	Unknown hydrography polygon
ZZ	Convoluted Stream

DURATION – A code for all arcs that indicates the span of time in which the feature contains water

PN	Perennial (based on cartographic symbolization)
FX	Fluctuating (for SHAID_TYP = 'IA' and 'CB')
IT	Intermittent (based on cartographic symbolization)

NA	Not Applicable (for SHAID_TYP = 'UN')

LANDLOCKED – Indicates whether or not a water feature is part of a landlocked hydro network.

YES	Part of hydro network that does not flow out of the state.
NO	Part of network that flows into Lake Superior, Lake Michigan or the Mississippi River

HYD_VER – A numeric value indicating the most recent release number in which the feature was edited. The first release will have all SHAIDs valued at 1.

GEOM_CHFLG – Any dimensional or positional changes to the feature.

1 – Feature has been changed geometrically

0 – Feature has not been changed geometrically

NAT_CHFLG – Any change to the natural attributes of the feature (SHAID_TYP, DURATION or LANDLOCKED).

1 – At least one natural attribute of the feature has changed

0 – No natural attributes have changed

GNIS_CHFLG – Any change to the GNIS items (SHAIDNAME or RIVSYSNAME)

1 – Either or both name fields have changed

0 – No name change

WBIC_CHFLG – Any change to the WBIC items (SHAIDWBIC or RIVSYSWBIC)

1 – A WBIC attribute has been altered

0 – WBICs unchanged

NEW – Any feature added (i.e., new) in this release

1 – A new feature

0 – Not a new feature